

blowing agent used. Finally, it is alleged that the Declaration of Dr. Giampiero Basile (the "Declaration") previously submitted on December 5, 2000 is deficient, in that the Examples of the Declaration are not commensurate in scope with the claimed invention or prior art.

Applicants respectfully disagree. Applicants first wish point out that although Klug et al. indicates that its azeotropic compositions can be used as expansion agents (See col. 84, line 21 of U.S. Patent No. 5,779,931), this is simply incorrect. Indeed, Applicants urge that the previously submitted Declaration shows this to be incorrect. Applicants respectfully point out that the compositions of Examples 6 and 7 of the Declaration, which correspond to compositions 125E/HFC-32 and 116E/HFC-125 of Klug et al. (See Table 1, rows 10 and 3, respectively, of U.S. Patent No. 5,605,882), simply do not expand. Clearly, if azeotropic compositions according to Klug et al. are not capable of expansion, such compositions must be inoperative as blowing agents, as would be clearly recognized by those of ordinary skill in the art.

Applicants further point out although it has been alleged that it would have been obvious to control foam density by adjusting characteristics such as the amount of blowing agent, such allegation is based on the fact that the blowing agent would work as expected. That is, the allegation rests on the assumption that the compositions of Klug et al. expand. However, as discussed above, those of ordinary skill in the art would find in the Klug et al. reference only those

azeotropic compositions that are unable to expand under those conditions known in the art for obtaining polyurethane foam. Accordingly, in that the adjustment of characteristics such as the amount of blowing agent would not result in polyurethane as claimed, foaming polyurethane and foam density as well as processes for obtaining such polyurethane as claimed, should not be considered obvious over the cited reference.

Furthermore, Applicants note that in the Advisory Action dated October 24, 2002, it is alleged that there is no support for the notion that as a substitute for CFC 11, the blowing agent is used in the same molar quantity as CFC 11. However, Applicants wish to point out that at page 2 (lines 12-14) of the Declaration, it is stated that the amount of blowing agent was calculated to have the same number of moles of the blowing agent in each of the tested compositions. Apart from this, Applicants respectfully submit that in the art of polymer foams, it is well known to those of ordinary skill that the expansion volume of a given blowing agent is related to the moles of the compound in the gas phase. Of course, CFC 11 is well recognized as an effective blowing agent for polyurethane foam, providing for foams of low density with good homogeneity. Accordingly, in order to compare the performances for making polyurethane foams of different compounds as blowing agents with that of CFC 11 (i.e., to prepare foams having the same physical characteristics as CFC 11), Applicants urge that those of ordinary skill in the art would recognize that the basis of

comparison should be through use of the same molar amount since, as noted above, expansion volume is related to moles of gas. In addition, Applicants point out that it is of course advantageous, from an industrial point of view, to use a molar amount of blowing agent that is equal to or similar to that of CFC 11, in order to obtain foams having the same physical characteristics as those obtained with CFC 11. In the instance that the amount of blowing agent required to prepare a foam is greater than the necessary amount for the reference compound, those of ordinary skill in the art would clearly recognize the greater amount of blowing agent required for foam preparation, and thus the resulting increase in manufacturing cost.

Finally, Applicants again note the Advisory Action, wherein it is also alleged that regarding claim 10, claim 1 would be limited to species XII and XIII. However, Applicants point out that in the absence of further elaboration, such allegation is not entirely clear. Nevertheless, Applicants would like to point out that the present invention in a preferred embodiment is concerned with a process for foaming polyurethanes, comprising adding to compositions used to make solid polymers azeotropic or near azeotropic foaming agent compositions as substitutes for CFC 11 to give a homogeneous foam having density of about 30 kg/cm², wherein the foaming agent compositions are selected from a group as claimed. Accordingly, in view of the above discussed evidence that the azeotropic or near azeotropic compositions of Klug et al. are inoperative as

foaming agents, Applicants urge that it would appear that the claims would require no further limitation.

Indeed, in view of the above as well as the previously submitted remarks, Applicants respectfully submit that this application is in condition for allowance and request favorable action thereon.

In the event this paper is not considered to be timely filed, Applicants hereby petition for an appropriate extension of time. The fee for this extension may be charged to our Deposit Account No. 01-2300. The Commissioner is hereby authorized to charge any fee deficiency or credit any overpayment associated with this communication to Deposit Account No. 01-2300, referencing Attorney Docket No. 108910-09024.

Respectfully submitted,



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